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FINANCING CAPITAL IMPROVEMENTS in MARYLAND

MARYLAND STATE PLANNING COMMISSION
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FINANCING CAPITAL IMPROVEMENTS

IN

MARYLAND

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Publication

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Baltimore 2, Maryland

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100 Equitable Building
Baltimore 2, Maryland

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Director

November 1, 1951

Honorable Theodore R. McKeldin
Governor of Maryland
Annapolis, Maryland

Dear Governor McKeldin:

I am pleased to transmit herewith a study of the Commission's staff called "Financing Capital Improvements in Maryland."

The study includes a historical survey of capital improvements financing in the State as well as an examination and recommendations of methods for such financing. Such an examination is particularly fruitful today because the defense program of the Nation may very well lead us into a fiscal situation akin to that prevailing during World War II and, will certainly carry us to even higher levels of inflation.

With these possibilities in mind we felt it wise to re-examine our methods of financing capital improvements. Two questions are asked. Is the property tax the most suitable source of funds for financing the debt? Is the creation of debt the best method of financing capital improvements?

We herein recommend that the property tax be abandoned as a source of funds for financing the debt; and, as a long range goal, that the capital improvement program be placed on a pay-as-you-go basis. We feel that the property tax should be abandoned because it does not conform to modern standards of a good State tax; there is a lack of correspondence between the receipt of the benefit and the payment of cost; and the need for capital improvement outlays is rising more rapidly than is the value of real estate in the State.

We have recommended the placing of the capital improvement program on a pay-as-you-go basis because we believe that the benefits gained from borrowing in anticipation of revenue to make capital improvements belong to a past period in Maryland history; and because the monetary gains of such a program are unequivocally clear and large.

Sincerely yours,

James C. Alban
Chairman

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PREFACE

This study is concerned primarily with an appraisal of the long established policy of Maryland to finance capital improvements by the issue of bonds guaranteed by the full faith and credit of the State and serviced by the levy of the general property tax between 1912 and 1951. In the early part of this period highway construction loans were financed by the general property tax, but after 1933 debt service for such loans were authorized as charges against the revenues of the State Roads Commission.

For the purposes of this study it is necessary to define the meaning of "Capital Improvements" as a concept both in theory and practice. The expenditures of a business firm are divided in theory into two accounting categories: (1) Capital outlays or those items of expenditure for assets which are expected to last over several fiscal periods; and (2) current account which includes expenditures for goods and services that are used up during the year. The same distinction between types of expenditure apply to public finance and public accounting.

This distinction between current expense and capital outlay is recognized and followed in Maryland. Sometimes, however, as in the case of private enterprise, the source of funds is from the sale of bonds and again from current revenues. If the State funds are from the former source, the items do not appear in the operating budget of the State as loan funds are spent under the direction of the Board of Public Works.

There is no official definition of capital improvements or outlays used by all State agencies that serves as a guide for determining whether the item should be classified as current or capital, and whether, if capital, the funds should come from current revenues or income from sale of bonds.

Each case is determined, it seems, on the basis of its own merit at the time in the light of the general meaning of capital outlay and its accounting significance. Undoubtedly, a definition of capital improvements does exist, however, in the accepted practices of State finance and accounting.

Examination of practice indicates encounter with the expected difficulty of distinguishing between maintenance, which is a current expense, and capital outlay. Some current expenses for maintenance have been included in the program of capital improvements as recommended by the State Planning Commission. The accumulated neglect of capital improvements during the war years caused the State Planning Commission to recommend inclusion of deferred maintenance as capital improvement in the immediate post war years. This practice was viewed by the State Planning Commission as a temporary expedient made necessary by the circumstances. Further, it was a period in which unexpended surpluses of current revenue were transferred for capital account. Such inclusion of maintenance was not intended to afford precedent for a permanent policy. Rather, the State Planning Commission recommends that the maintenance needs of the various State agencies be financed through the operating budget and current revenues.

The same difficulty of distinction between maintenance and capital outlay exists without doubt in the classification of such items of expenditure included in the current operating budget.

While no specific definition to delineate maintenance from capital outlay has been formulated by the State Planning Commission, the statements in their reports indicate that capital outlays may be said to include one or more of the following elements: (1) The value of a structure

has been appreciably enhanced; (2) A change in the kind of equipment or structure may have taken place; (3) The expenditure is unique in that it is not likely to recur within five years; and (4) the useful life of the improvement is equal to or greater than the life of the bonds by which it is financed.

With regard to the source of funds for meeting costs of capital outlays, practice indicates they have been obtained from both current and loan funds. In the former case, they have been included in the operating budget of the State as though they were current expenses under the headings of Equipment, Land, and Structures. In the latter case, the funds are expended under the jurisdiction of the Board of Public Works assisted since 1947 by the Department of Public Improvements.

When capital outlays are included in the operating budget, they may more easily escape the scrutiny of the State Planning Commission in overall planning of the long-range capital improvement program. This Commission is vested with the responsibility "to prepare and to keep up a long-term development program of the major State improvement projects. The various State departments, institutions, officials and agencies... prepare and submit to (the Planning Commission)....their proposals for major projects. It shall be the duty of such Planning Commission to coordinate such plans and proposals with each other and with the general plans of such Commission, and to submit to the Governor and the General Assembly a report at least once every two years showing the Commission's recommendations and program for improvement projects."

Construction that is financed by current budget appropriation is now declining in importance. In 1948, 94% of the funds in the current

budget appropriations and expenditures for capital outlays were for structures. The sum for structures diminished to 21% in the 1952 appropriations. Further, in 1948, 16% of these expenditures were for more than $50,000 and 37% were for less than $1,000. In 1952 appropriations there were no sums for construction for more than $50,000, and 70% of the appropriations were for less than $1,000.

The practice of diminishing capital outlays in the current operating budget has assured more effective review of proposed capital outlays by the State Planning Commission in the preparation of the Capital Improvement Program and has brought improvement in the over-all public works construction program of the State. Further, long term securities (15 year term) have recently become practically the sole source of funds for capital outlay other than by the State Roads Commission.

It needs to be noted that the capital outlay data upon which this study is based does not conform to the practiced concepts of capital improvement expenditures described above. Statistics based on this more inclusive definition are not available. The available figures are those of the U.S. Bureau of the Census, and these are used. They were compiled by use of a more restrictive definition of capital outlay. It is believed, however, that there is not a serious differentiation between the fiscal reality and this statistical picture of it. The data is deemed valid for the particular scope of this study which aims to review the present methods of financing capital improvements in Maryland by use of loan funds. Further, it surveys the merits of other means than the revenue from the State general property tax to service State debt, and appraises public works as a counter-cyclical measure and pay-as-you-go versus borrowing.

I. HISTORICAL INTRODUCTION

The established policy of the State of Maryland is to meet the entire cost of major capital construction from funds raised by the issue and sale of bonds. The main objective of financing capital improvements by borrowing is to spread the financial burden on the taxpayer over a number of years and not to concentrate the tax burden on them in the years that the funds are spent. This policy has been followed consistently by the State except for a brief period in the 1940's.

During the war years, and the period immediately thereafter, fewer capital improvements were undertaken. Further, a capital surplus, caused by rapidly increasing yields of the tax system, built up in the State Treasury. The General Assembly in 1949 allocated surplus funds for construction and improvements of the State's mental and tuberculosis hospitals. At the same time and again in 1950 and 1951, the General Assembly authorized the issue of large amounts of bonds for capital improvements in accordance with the policy of borrowing to finance such projects.

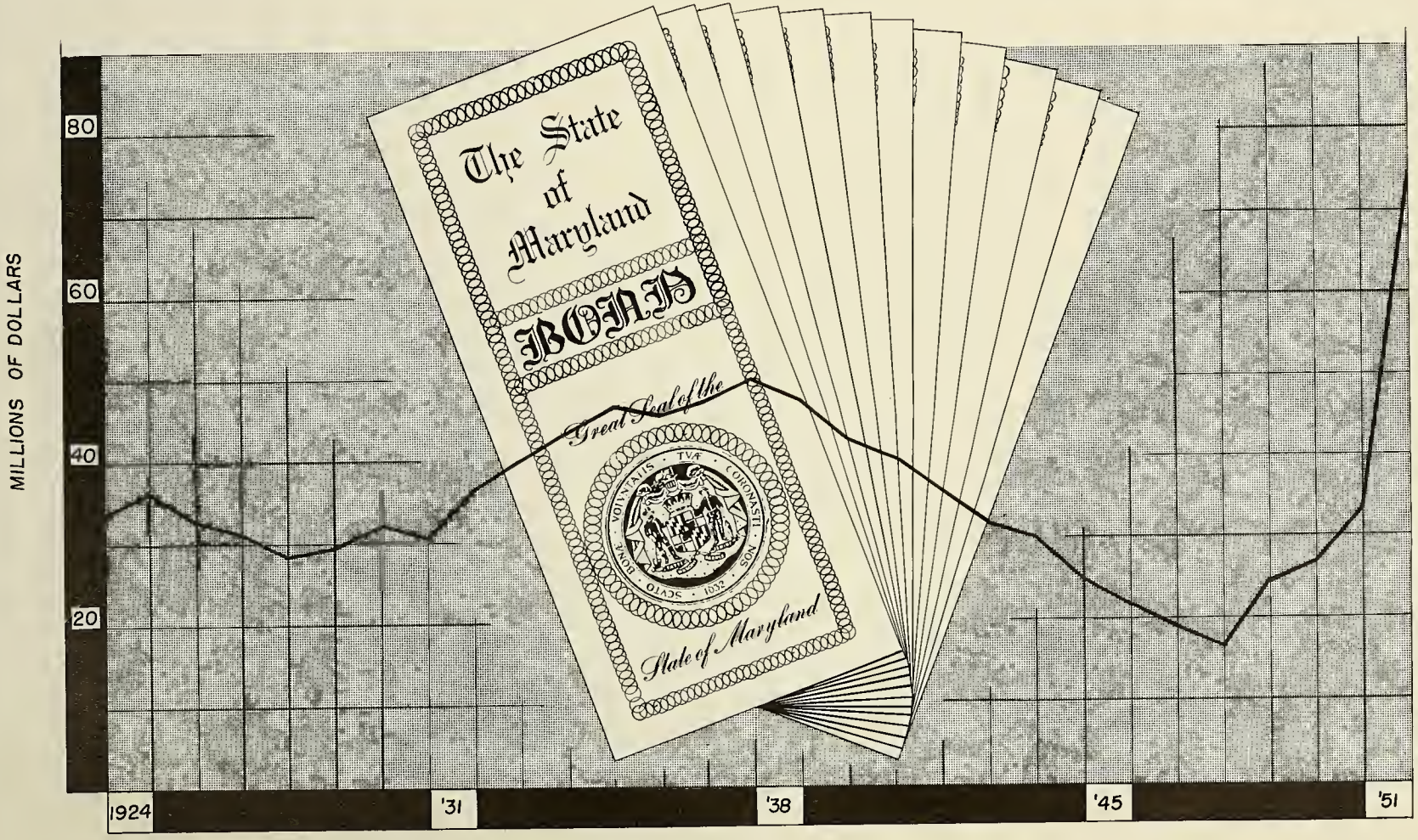
The total amount of bonds outstanding has fluctuated considerably since 1924. This is shown on Chart 1 on page 6. From an amount totaling a little over $34,000,000 in 1924, it fell to slightly more than $28,000,000 in 1928. During the depression of the thirties, the debt increased to a figure over $48,000,000 by 1938. Starting with 1939, the improved financial condition of the State and the cut-back in capital construction during the war, combined to bring about a steady reduction in the amount of bonds outstanding. By 1947, the State's debt was only $16,895,000. The debt began to rise again in 1948 and reached $32,846,000 in 1950. As of June 30, 1951 the debt of the State reached a record height of $72,898,000.

CHART 1

STATE OF MARYLAND

TOTAL BONDS OUTSTANDING, 1924 - 1951

(In millions of dollars)



SOURCE: Reports of the Comptroller of the Treasury, 1924 – 1950

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The main objective of using bonds for financing capital improvements is to spread the costs over a number of years. An analysis of this spread is indicated in Chart 2 on page 8 that shows the total capital outlay in the State of Maryland for the years 1922-1950.

In examining this chart, two limitations should be kept in mind. The Bureau of the Census figures, which form the basis for the chart, were not available for the four years 1933 through 1936. Furthermore, the capital outlays by the Census include those made with funds obtained by the sale of revenue bonds for highways and from the gasoline tax. Total outlays for highways is given in Table 7, page 57. For the years 1933 through 1936 the figures used were compiled by the Maryland State Planning Commission for a study of public works expenditures of Maryland. As is explained in the Appendix, the Planning Commission's figures are not strictly comparable to the Census figures since they include maintenance as well as construction expenditures. The second limitation is that in the case of both sets of figures - those of the Bureau of the Census and those of the State Planning Commission - neither conform to the practiced concepts of capital outlay which is set forth in the preface of the report. However, in spite of both of these shortcomings the chart gives a fairly good index of the trend in capital outlay for the State of Maryland in the period covered. Table 7 of the Appendix, page 57 should be consulted for the figures on which the chart was based and for an explanation of the different sources of the figures.

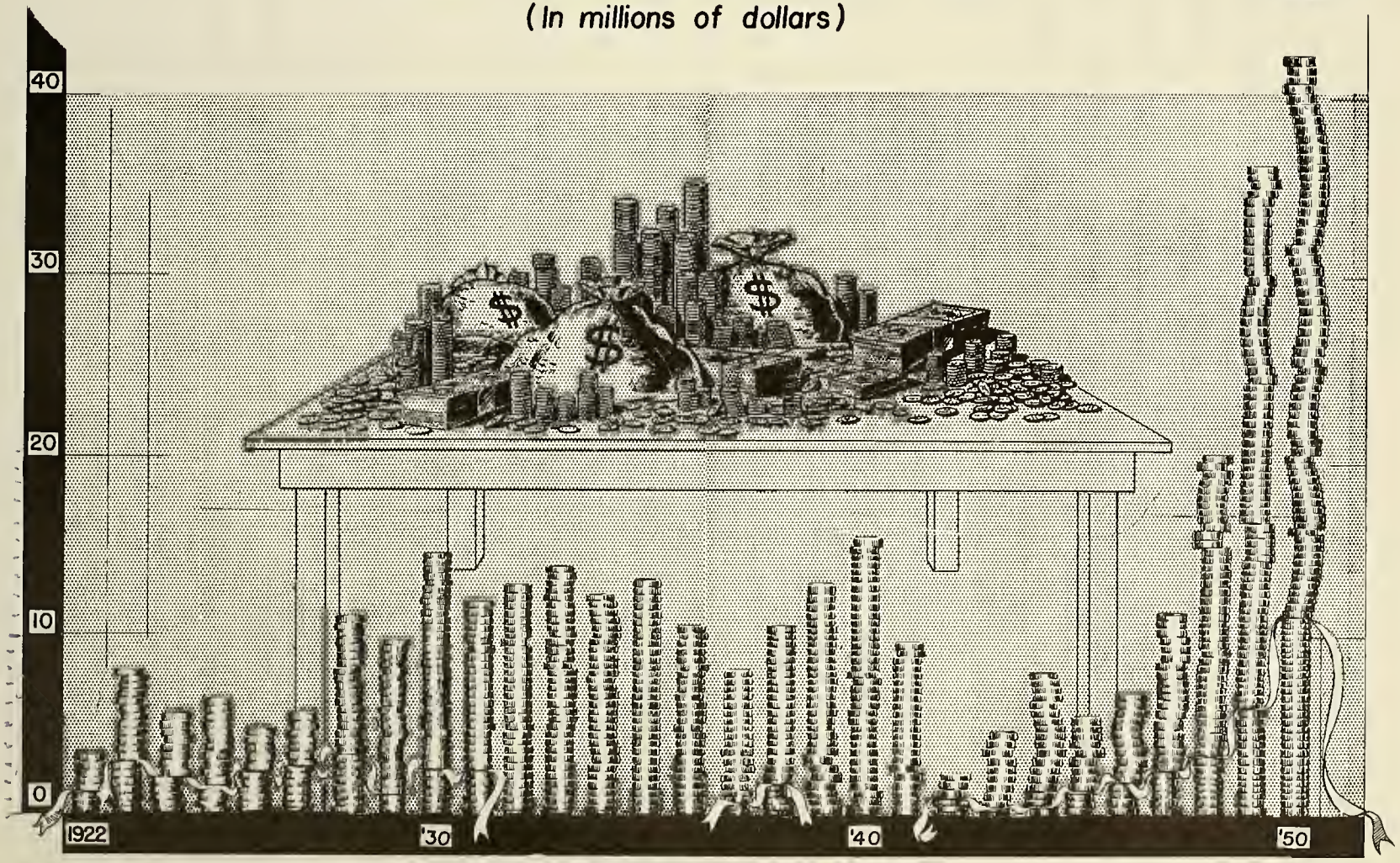
The Chart shows that in the decade from 1922 to 1932, there was a clearly marked tendency for capital outlay to rise. The rise was not continuous, however, in the sense that each year had a larger capital outlay than the preceding one. In the years from 1933 through 1936, there

CHART 2

STATE OF MARYLAND

YEARLY CAPITAL OUTLAY, 1922—1950

(In millions of dollars)



LEGEND: BELOW the RIBBON are expenditures other than roads.

SOURCE: U.S. Bureau of the Census; Maryland State Planning Commission

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occurred a sharp reduction in capital outlay, for in 1932 a capital outlay of over 11 million dollars occurred while in 1937 the figure is less than seven and a quarter million. There was a drop of over four million dollars in annual construction and maintenance expenditures from 1933 to 1936, which indicates that not only was new construction curtailed, but repairs and maintenance were also cut in some instances. From 1937 to 1940 there was another steady rise in capital outlay, the last year even exceeding the maximum prior to 1932.

The effect of the war and its aftermath is clearly marked. First there was the war retrenchment of construction, which in 1943 led to the reduction of capital outlay to less than two and a half million dollars. Then in the years immediately after the war, capital outlays were held to a minimum because materials were scarce and prices high. Capital outlays rose drastically beginning with 1947. The greatest sum occurred in 1950. These large outlays of the past few years reflect not only the accumulated needs resulting from the war retrenchment, but also increased construction costs.

A comparison of Charts 1 and 2 shows that changes in the amount of bonds outstanding and capital outlay are not directly related. In the years 1924 through 1928, while the amount spent on capital outlay was constantly increasing, the amount of bonds outstanding was decreasing. In other words repayment of old debts exceeded new borrowings. Again in the period from 1933 to 1937, although capital outlay was decreasing, the debt was rising at a rapid rate, because the borrowing done in that period was not only for purposes of capital construction but also for relief and various current expenditures.

With this picture of State indebtedness and the amounts that it has expended yearly for capital improvements in mind, it is necessary to examine the manner in which Maryland has paid for the servicing of the debt.

Every authorization of a bond issue by the General Assembly is accompanied by a provision for repayment of the bonds. This is in accordance with the requirement of the State Constitution which states that, "No debt shall be hereafter contracted by the General Assembly unless such debt shall be authorized by the law providing for the collection of an annual tax or taxes sufficient to pay the interest on such debt as it falls due, and also to discharge the principal thereof within fifteen years from the time of contracting the same; and the taxes laid for this purpose shall not be repealed or applied to any other object until the said debt and interest thereon shall be fully discharged." 1/

The State of Maryland has provided between 1912-1933 for the repayment of bonds for capital improvements almost exclusively through property taxes. Before 1933 highway construction was no exception as the authority to the State Roads Commission to issue revenue bonds, which are not deemed to constitute a debt of the State, was not granted until 1937. 2/ The total bond authorizations financed by property taxes from 1912 to 1933 amounted to $89,144,300 of which $40,467,000 were issued for highway construction. Beginning with 1933, highway structures and roads have been financed exclusively from revenues of the State Roads Commission allotted

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1/ Article III, Section 34.

2/ Annotated Code 1939, Article 89B, Section 124 and 125.

by law to repay principal and cover interest on loans for highway purposes. The total bond authorizations financed by the State general property tax amounted to $257,803,700 between 1912 and 1951. There was one minor exception to financing improvements other than roads by general property taxes. The $8,500,000 issue of 1935 which amounts to 3.3 per cent of the total authorizations, was serviced by use of the inheritance tax. Data on bond authorizations is given in detail in Table 8, page 60, of the Appendix.

The levy of the general property tax for the payment of the State debt fluctuated much less than did the amounts expended on capital construction, as can be seen by comparing Chart 2 on page 8 with Chart 3 on page 12. Chart 3 shows the levies on properties from 1924 through 1950. The figures on which this chart is based are shown in Table 9 of the Appendix, page 63. 1/

An examination of Chart 3 shows, however, that variations in the annual levies of the property tax have been far from eliminated. In contrast with a levy on property of slightly above five and a quarter million dollars in 1924, a levy of almost eight million dollars was placed on the taxpayers in 1927.

This rise in returns from 1924 to 1927 occurred in spite of the fact that the rate on real estate was lowered from 30-2/13 cents per $100 in 1924 to 27-11/28 cents per $100 in 1927 (see Chart 4 on page 13). A larger amount was collected from this source of revenue in the period 1930-32 than in any of the prosperous years of the twenties except 1927.

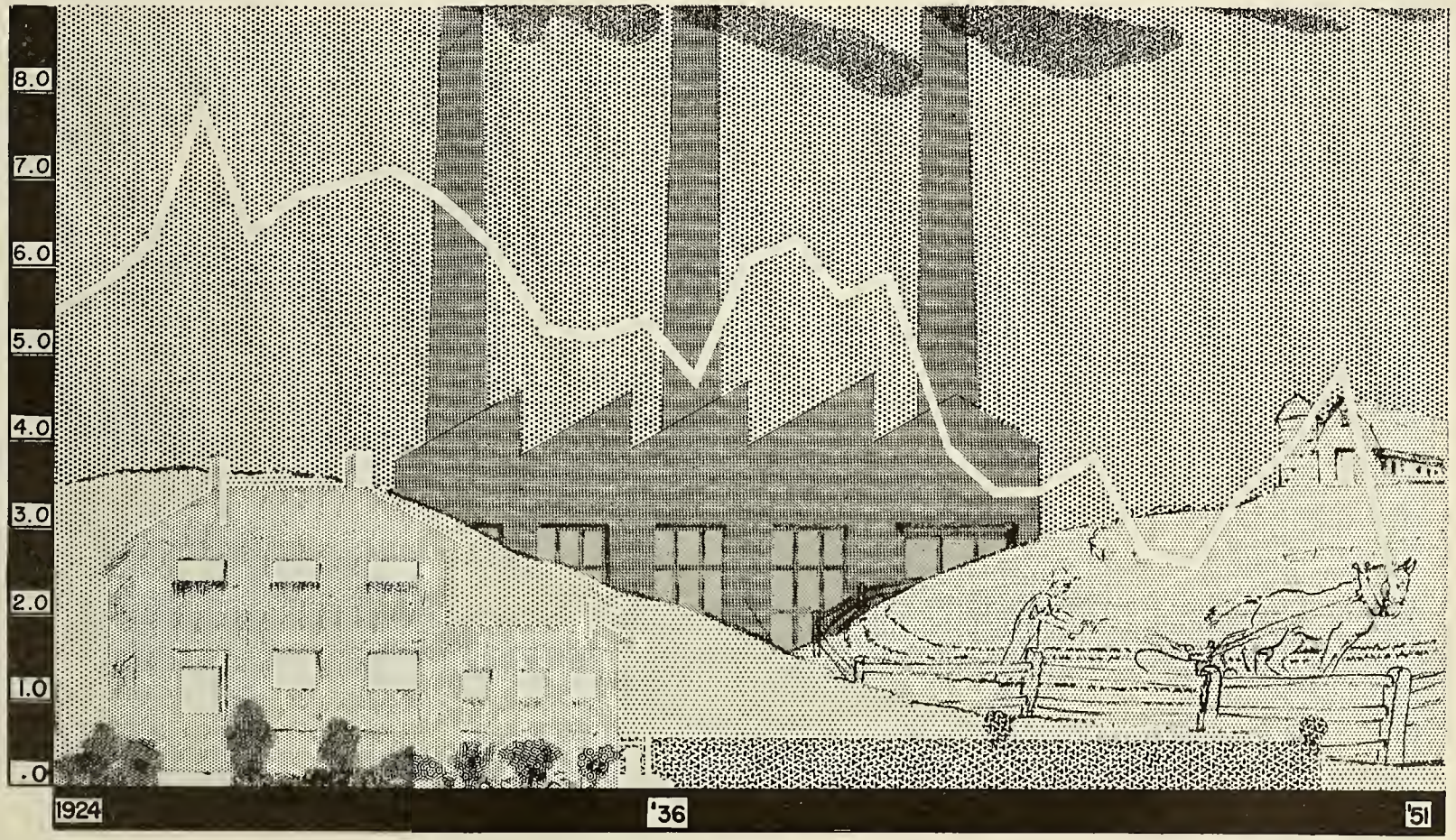
1/ It should be noted that the levy on property included in addition to taxes on real estate, levies on securities during the period 1924-1939, and also taxes on personal property.

CHART 3

STATE OF MARYLAND

LEVIES ON PROPERTY, 1924 - 1951

(In millions of dollars)



SOURCE: Reports of the State Tax Commission

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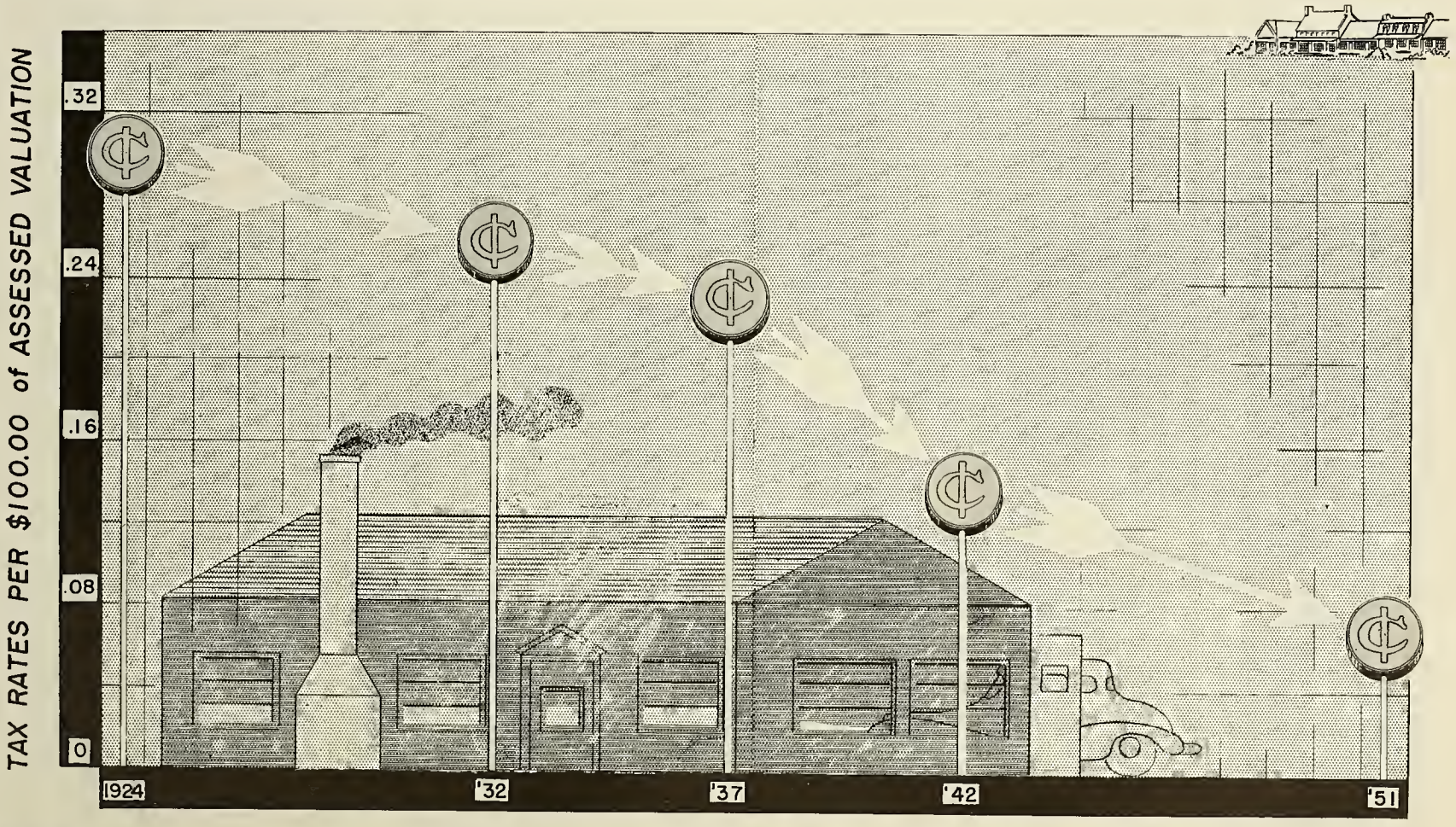
CHART 4

STATE OF MARYLAND

TAX RATES ON REAL AND PERSONAL PROPERTY 1924 — 1951



SOURCE:
Reports of the State Tax Commission.
Reports of the Comptroller of the Treasury, 1924—1950.

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This yield was also higher than the sums collected in any subsequent year, despite the fact that 1930-32 were critical depression years. The years following 1939 which might have been expected to yield sharp increases in this revenue, failed to produce it. The rate of taxation was cut sharply, because at this time the amount of bonds outstanding was decreasing. Beginning in 1938, returns from property taxes again began to rise. This trend has continued.

While the tax rate on securities remained constant in the period 1924-1939, when the tax was repealed, the tax rate on real estate showed a steady decrease. This is shown in the Chart on page 13. The greatest drop occurred in 1942 when the rate dropped from .23-23/100 to .14 per $100. The trend was reversed in 1948 when the rate was increased. Slight rate increases were imposed also in 1949 and 1950. Figures on which this chart was based are contained in Table 9 of the Appendix, page 63.

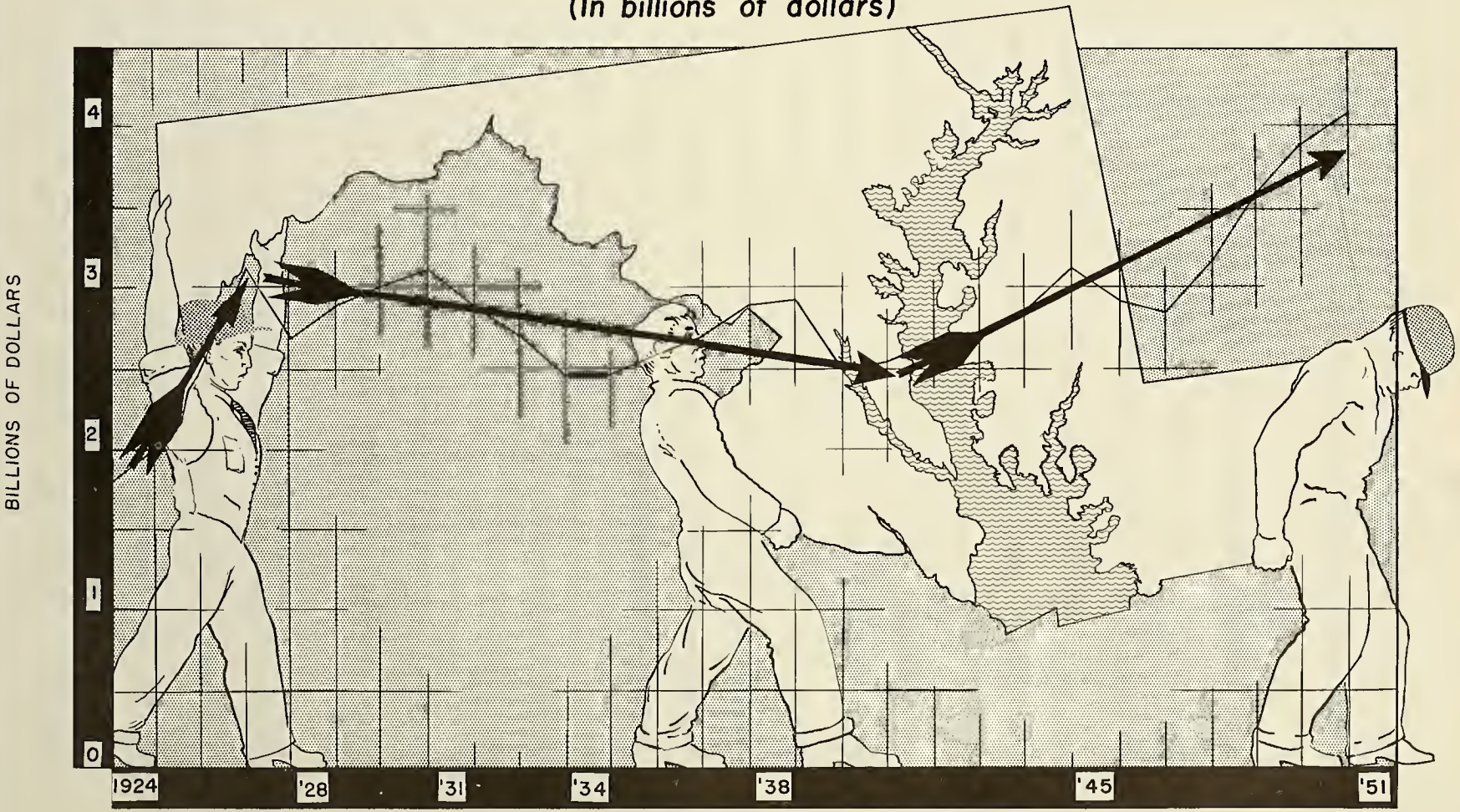
Since the property tax is practically the main source of funds for the servicing of the debt, to which the full faith and credit of the State is pledged, the sums which can be borrowed are limited not by size of the debt but the value of the base of the property tax, i.e. the assessed value of properties. Chart 5 on page 15 shows the total assessed value of the base of the State levy for the period 1924 through 1950. An examination of this chart shows that the value of the base rose from about $1.9 billion in 1924 to almost $4 billion in 1950. The figures upon which this chart is based are contained in Table 10 of the Appendix, page 64. These figures by themselves underestimate the magnitude of the change which has taken place in the value of real property in the State of Maryland because the 1924 figure gives the value not of real estate alone but includes securities also. In 1950, securities were no longer a part of the base as

CHART 5

STATE OF MARYLAND

ASSESSED VALUE OF BASE OF STATE LEVY, 1924 – 1951

(In billions of dollars)



SOURCE: Reports of the Comptroller of the Treasury, 1924 — 1951

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the tax on them had been repealed almost 10 years earlier. The assessed value of securities for purposes of the State levy was about $300,000,000 in 1924.

The rise in values took place in spurts. First, from 1924 to 1927 there was a spectacular rise in the value of the base by over $1 billion. The full amount of this increase in value was not sustained, however, and in 1928, the value fell by over $400 million. Practically the full amount of this decrease was restored during the period from 1929-1931. The values dropped again, however, in the four years following 1931. A third increase, though of minor importance, occurred in 1936-1939. Again it was followed by a decrease in values in 1940. Since 1940, there has been an almost steady increase in the value of property with the greatest increase occurring in 1949 and 1950. The major portion of this increase can be attributed undoubtedly to the rise in construction costs and to reassessments following the rise in the price level. The first great spurt, from 1924 to 1927, may very well reflect a compensation for the lag between the higher real estate market values, incident to the rise and stabilization of general prices considerably above the pre-World War I level, and the assessed base. The chart on the whole indicates that the fluctuations in the assessed value of real estate do not follow closely the changes in the business cycle.

SUMMARY

The State of Maryland has financed its capital construction programs mainly through the sale of bonds. Except for the war period, the State's bonded indebtedness has steadily risen since 1924, the greatest increases have occurred in the fiscal years 1950 and 1951.

With the exception of highway construction, the repayment of bond issues have been financed almost exlusively by the property tax. The value

of the base of this tax has greatly increased in the last seventeen years.

This increase has not been steady, however, and the fluctuations have not consistently followed changes in the business cycle. For example, the assessed value remained relatively constant in the period 1928-1938 in spite of the depression during that period.

The property tax rate has declined sharply in the past 20 years. The greatest decrease occurred in 1942. The tax rate has decreased in face of increased expenditures for capital improvements and a rise in the State's bonded indebtedness. The increase in the assessed value of property explains the decrease in the property tax rate.

II. PUBLIC WORKS AS A COUNTERCYCLICAL MEASURE

The past two decades have seen a tremendous increase in governmental activities. Both the amount and character of public expenditures have made government the largest single influence on the general level of economic activity. As a result, it is now an accepted principle in public finance, that governmental expenditures should be adjusted as much as possible to stabilize the total economy and counteract threatening fluctuations. This means that government should decrease its expenditures to the minimum of absolute necessities during a prosperous period and increase them during a recession.

As compared to the Federal Government, state and local governments can play only a relatively minor role in affecting the general level of economic activity, both because of the relatively small size of their budgets and the fixed character of most of the services which they supply. However, there are certain kinds of activities which are flexible and which could be varied in such a way as to assist in counteracting cyclical fluctuations. Moreover, wherever possible, their fiscal policies should be related to Federal government stabilization policies, so that they do not nullify national countercyclical activities. As a matter of past practice, states and local governments have conducted operations which tended to aggravate the cycle. Prominent authorities on the subject have stated: "In the past, states and localities have typically made large capital outlays in prosperous periods and have deferred capital improvements and even maintenance when business conditions were depressed. They have borrowed heavily when private markets were expanding and have curtailed their borrowing just at the time when new issues were needed to stimulate the economy. States and localities have in

fact followed the swings of the cycle and have thereby intensified the violence of economic fluctuations. 1/

The importance of the fiscal policies of governmental units is demonstrated by the fact that under certain circumstances, additional government expenditure can increase aggregate income more than the amount of that expenditure. This occurs when there are unemployed resources, and it is physically possible to expand the production of goods and services. Any expenditure of the government will first increase the income of the immediate recipient. However, if this recipient does not save this increased money income but spends it, this will cause total income to increase by the amount spent. This process will be repeated if the second recipient also spends income received or a portion of it. In this manner, governmental expenditures will increase income over and above the sum of income received by the initial recipients.

There are certain types of expenditures made by the government which cannot be made to vary with the cycle. The services of the courts cannot be curtailed during a boom and expanded during a recession, nor can the number of policemen be changed significantly. Even in the case of public works, local communities cannot defer for long periods of time urgently needed items such as water-supply systems, sewage-disposal plants, streets, schools, hospitals and similar essential public improvements.

In a few areas, however, there are projects which are relatively variable in their demands for annual expenditure. There are expenditures for welfare which by their very nature expand during a depression when unemployment has increased and business is slack. If the class of people who are

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1/ Alvin H. Hansen and Harvey S. Perloff, State & Local Finance in the National Economy, 1944. Page 199.

eligible for assistance or compensation is adequately defined in the public welfare regulations, the flow of funds to the public will automatically increase during a recession and decrease during a period of prosperity.

On the other hand, certain kinds of capital improvements, which do not provide urgently needed services, can be postponed. Such items as new public office buildings, express highways, belt lines and bypasses, bridges, airports, river and harbor improvements are desirable but usually are not so urgent that they cannot be postponed for a while. A number of such programs could always be kept available in the blue-print stage ready for activation when business activity slumps. This would, of course, require considerable long-range planning of such improvements but the State stands to gain from such an activity.

As an incidental point in this discussion, it might also be pointed out that the State would benefit from following the policy outlined above since not only would it contribute to the economic prosperity of its citizens but it would also be concentrating its construction activities during periods when building costs would be comparatively low, and hence it would receive a greater benefit per dollar expended.

SUMMARY

State and local governments have a responsibility for promoting economic stability. While in comparison with the Federal Government, their role is relatively minor, nevertheless there are some types of expenditures which can be varied to assist in counteracting fluctuations in the business cycle.

Certain kinds of capital improvements fall into this category. Accordingly, a capital improvement program should be appraised not only in terms of its desirability for the citizens of the State, but also on the

effects it will have on the State's total economy. Within this framework, the State should attempt whenever possible to postpone improvements not absolutely necessary during a boom period and expand these activities during periods of depressed business conditions.

III. PROPERTY TAX AS SOURCE OF FUNDS FOR CAPITAL IMPROVEMENTS

The two principal norms in a modern democratic society regarding taxation are: 1. the tax burden should be borne by those who are most able to bear it; and 2. a government expenditure should be paid for by those deriving the benefit of the service. The former alternative, the ability-to-pay principle, is applied to all cases where the beneficiary is unable to afford the service, or where it is deemed essential for the welfare of the community that the services in question be enjoyed by everyone. The second of the alternatives, the benefit principle, was at one time much more popular than it is at present. Its application is now confined largely to those services of the government which are similar to the services of private enterprise, such as the services of municipally-owned public utilities or municipally-owned transportation. However, most services cannot be sold directly to the members of the community, and the revenue which pays for these services is obtained by general taxation rather than from service fees. It is generally agreed that the cost in these cases should be borne by those who can do so most easily, that is to say, the wealthiest members of the community.

Taxes may be: 1. proportional or 2. graduated. The former is a tax in which the amount of the levy bears a fixed proportion to the base on which it is levied. An example of the proportional tax in Maryland is the State income tax which is levied at the rate of 5% on investment income and 2% on ordinary income. Thus, both a high and a low income family are taxed at the same rate, but the higher income family would pay more taxes since its income base is higher.

The graduated tax is one where the proportion of the levy to the

base depends on the size of the base. The graduated tax may be either 1. progressive, or 2. regressive. A progressive tax is one where the proportion of the levy to the base rises with the size of the base. An example of a progressive tax is the Federal income tax. The following table shows the percentage of income paid for taxes at different levels of income, both for a married couple with no dependents and a couple with two dependents:

TABLE 1

FEDERAL INCOME TAX RATES
1951

Income Net, before Exemptions	Tax Rate No Dependents	Tax Rate Two Dependents
$ 1,500	4.0%	----
2,000	8.0	----
3,000	12.0	4.0%
5,000	15.2	10.4
8,000	17.7	14.4
10,000	18.9	15.9
15,000	21.7	19.3
20,000	24.4	22.3
25,000	26.9	25.1
50,000	39.2	37.8
100,000	52.8	51.9
500,000	80.7	80.5
1,000,000	85.9	85.7

A regressive tax is one where the proportion of the levy to the base falls as the size of the base increases. While the Maryland State sales tax is proportional to the value of the purchase made, actually it is regressive. This stems from the fact that lowest-income groups spend a greater proportion of their incomes for consumer items upon which the tax is levied than do the wealthy. Accordingly, the tax takes a larger proportion of money from the incomes of the lowest-income citizens.

From a comparison of the three types of taxes, it is obvious why most tax authorities consider the progressive income tax ideal as a method of taxing those most able to pay.

At one time the real estate tax was very highly thought of as an equitable distributor of the tax burden. This position might have been defensible at a time when real estate represented a large proportion of the wealth of the community. However, at present, with real estate representing a smaller proportion of the wealth, reliance on the real-property tax leaves many people of means free from a large part of the tax burden borne by real-property owners.

A tax on real estate or more correctly that part of the tax which is on the improvements, is to a large extent a tax on the consumption of shelter. This can be shown by the following argument. Buildings represent an expenditure of capital and labor and require an outlay for maintenance and repairs. To induce investors to build houses it is necessary that the return on the capital invested in houses yield as much as it would in an investment of equivalent risk. If the owners are forced to pay the tax, their profits are reduced. When this happens, construction and repair of buildings are curtailed until, owing to the fall in supply of dwellings, rentals rise. Thus, part of the real-property tax is shifted to the tenant. Accordingly, an eminent authority on public finance has concluded: "While a real estate tax falls on the owner in case of a stationary or a declining population, a considerable portion of the tax is shifted to the tenant, in normally prosperous towns or city districts, under the present administration of our property tax..." 1/

The part of the real estate tax which falls on housing is regressive, even if it is proportional to rent, because a larger proportion of the lower incomes is spent on shelter than is of higher incomes. In addition,

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1/ E. R. A. Seligman, The Shifting and Incidence of Taxation, (1926), page 296

it has been pointed out that the tax is often regressive also, because "assessors usually assess property of low value at a higher ratio (of assessed to true value) than they do property of high value. The most innocent of the reasons is that high valued property is less familiar to the assessor and that, when he must indulge in guessing he does so conservatively." 1/

According to a report of the Maryland Tax Survey Commission of 1949, "substantial progress has been made during the past fifty years to improve assessment practices in Maryland; and . . . . . Maryland compares favorably with other states in this respect." 2/ Evidence, however, that the above-described practice does exist in some localities, is shown in a recent study of rural tax problems in Montgomery County conducted by the University of Maryland. A comparison was made in that study of the ratio of assessed value to sales prices for farm real estate in five different price ranges in a number of counties. Sales prices ranged from $2,500-4,999 to $30,000 and over. The figures showed that in Carroll, Frederick and Montgomery counties the higher the sales price of the property generally, the lower was the ratio of assessment to market value. 3/

The assessment of business property presents the problem of arriving at a valuation for the plant, tools and machinery, and inventories, and transportation equipment unless these items are specifically exempt from state and local taxation. Physical assessment requires time and expense not within the limitations of the taxing authority in many cases. Secondary means must therefore be resorted to. The usual procedure of assessment in Maryland for

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1/ Harold M. Groves, "Income Versus Property Taxation for State and Local Governments," Journal of Land and Public Utility Economics, (1946), 22:346

2/ Third Interim Report of the Maryland Tax Survey Commission of 1949, December 14, 1950, page 85.

3/ F. E. Hulse and W. P. Walker, Rural Tax Problems in Montgomery County, Maryland, Published by the University of Maryland, Agricultural Experiment Station, as Miscellaneous Publication No.100, (Dec., 1950), page 9.

instance is to assess for the new value of the property minus a moderate rate for depreciation. In the case of inventories the assessment is based on cost or market valuation whichever is lower.

This procedure is not free from difficulties which may contribute to inequitable assessment between business firms. Older firms are unable often to furnish information as to new value and a heavily depreciated book value is substituted. Newer firms are able to provide information on new value. Their property is assessed at new value less allowance for depreciation far less than those in common use by business. Such methods ignore matters of obsolesence and the rising cost of new equipment which tend to shift a heavier burden on the new firms.

Finally, it needs to be noted that even with an equitable assessment of the property of business firms the property tax tends to operate regressively as a business tax because firms vary so as to capital turnover or sales divided by capital. This makes the tax burden relative to gross earning lower on the high turnover firms and higher on the low capital turnover firms.

The real estate tax is the mainstay of county and local finances. For most local governments it is the only tax they levy. Most experts in public finance have been recommending for some time that state and local governments derive their revenue from separate sources. The main reasons for such separation are as follows:

1. Due to overlapping, the respective governments are apt to lose sight of the total burden of property tax on the taxpayer.
2. With the State and local governments competing for the same tax dollar, the local government is left inadequate tax resources as the State is in a superior position to get the better of the

competition. This has been one of the main reasons for the fiscal difficulties of local governments.

Furthermore, in a period of rising prices the assessed valuation tends to lag behind the price level. Unless the tax rate is raised substantially, local governments experience financial stringency in providing the established level of public services. The localities have been relieved in Maryland by the sharing of the personal income tax and other taxes levied by the State under legislation enacting recommendations of the Sherbow Commission.

3. When the State is in a position to control the one large tax source available to local jurisdictions, not only does this limit local financial independence and also political independence.

The need for the State to withdraw from the field of property taxation has gained adherence steadily. At present the states that levy no property tax are Delaware, Oklahoma and Rhode Island. For those which still levy a tax on property, the relative importance of revenues from it has declined steadily. Fourteen states which taxed property in 1949, limited the levy to special kinds of properties such as public utilities, motor vehicles, investments, inventories and similar items, and levied no tax on real estate.1/

In the State of Maryland, approximately 30% of tax receipts in 1924 were derived from the property tax, while in 1950, this tax contributed only 3.6% to total state tax receipts. The extent to which the State of Maryland

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1/ See U. S. Bureau of the Census, Sources of State Revenue of 1949, dated November 1949. States listed therein as levying no tax on real estate were California, Connecticut, Illinois, Iowa, Massachusetts, Michigan New Jersey, New York, North Carolina, Ohio, South Carolina, Tennessee, Washington, and Wisconsin. There may be other states in this same category since for some of those listed there is no designation of the kinds of property taxes levied.

has withdrawn from this field of taxation is demonstrated even more dramatically by the decline of the State property tax rate from $.30-2/13 in 1924 to the present rate of $.06. In spite of the fact that the State property tax has declined both in importance and effect, the difficulties inherent in the State's levying what is essentially a local tax remains still.

Under a tax system with the separation of sources of revenue for state and local governments and with the real estate tax relegated to the exclusive use of the local levels of government, the present rate of the tax might be lowered to some extent. This should be a welcome relief to a much overburdened section of the economy. It was pointed out sometime ago by one of the leading American economists that "there are growing indications that real estate has reached the limit of its capacity to bear this burden (taxes) without undesirable social consequences."1/ More recently it has been stated that "the property tax has deterioriated in recent years, mainly because of the heavy burden that real and personal property has had to bear."2/

The property tax, furthermore, is ill-suited to an economy like ours which suffers from fluctuations in income and prices. Since a property tax is an overhead cost item, it weighs heavily on the taxpayer in times of recession. It cannot be maintained that adjustment will take place through revaluation of the base, for, even when the property is revalued, its value is not reduced in the same proportion as is the current income of the taxpayer.

Besides these technical deficiencies of the real estate tax, not only does it fail to conform to the norm of being a levy on those best able to pay, it also fails to conform to the alternative principle of taxing those

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1/ Clark, J. M., Economics of Planning Public Works, page 121 (1935)

2/ Harvey S. Perloff, "Fiscal Policy at the State and Local Levels," in Postwar Economic Problems, S. C. Harris ed. (1943).

who receive the benefit of the government expenditure. If it can be said about the services of local governments that the fire department and police department do not give protection which can be measured by the amount of property a person owns, it can be asserted more emphatically that the amount of property a person owns offers no index as to the benefits he derives from State services. This is true particularly of the group of expenditures which we have classified as capital improvement expenditures. The various structures built and acquired by the State, and financed by loans serviced by the real-property tax, do not even remotely benefit the real-property owners in relation to the value of their real estate holdings.

The use of the real estate tax for the purpose of paying the debt has the added disadvantage that the level of the debt is artificially tied to the value of the taxable real property in the State. While it may be desirable to limit, curtail, or even eliminate the State debt, the question as to how large it should be, ought to be decided on the basis of the overall economic situation and not on the value of property alone. The importance of value of real property as a source of income has been decreasing in industrial economies, and other sources of income have grown in importance. For example in 1944, 72% of our national income was made up of wages and salaries, while net income to proprietors which included both income from use of property and services was only 15% of national income. The remaining 13% was composed of interest, net rents, and net corporate profits.1/

From 1927 through 1942 the value of real estate in the State of Maryland remained relatively stable at a level of about two and a half billion dollars. Thus over a period of fifteen years the value of the base

1/ Edward D. Allen and O. H. Brownlee, Economics of Public Finance, (1947), page 415.

of the real estate tax did not change. Within this period, however, we find that the total value of bonds outstanding varied over a considerable range. The figure rose from $28,321,880 in 1928 to $48,247,000 in 1938, and the ratio of outstanding debt to total assessed valuation was 1.04 per cent in 1928, 1.66 per cent in 1938, and 1.75 per cent in 1951. Whatever may be the desirability of eliminating the debt, until this is done, it is certainly not advisable that a rising item of expenditure should have its source of funds fixed to the tax base of value of real estate in view of trends in national income distribution.

SUMMARY

The property tax does not conform to the modern standards of a good tax: a. it is regressive; b. during a period of recession this tax bears heavily on people with fluctuating incomes. Moreover, this tax is particularly undesirable when levied by the State since real estate is already heavily burdened with municipal and county taxes, which are the main source of funds for these levels of government.

In particular, the property tax is unsuited for the purpose of financing the State's capital improvement program for the following reasons:

a. The lack of correspondence between the receipt of the benefit and the payment of cost is particularly marked in the case of State capital improvements and ownership of property.

b. Outlays for capital improvement are rising more rapidly than is the value of real estate in the State of Maryland.

IV. THE DYNAMICS OF ABANDONING THE STATE PROPERTY TAX

If the State real estate tax were to be abandoned, what economic consequences would tend to result from such a change in the taxing policy of the State? This question is answered in the present chapter. It will deal only with the problem of change in the tax structure, which is quite different from the establishment of a tax system where none formerly existed.

All other things being equal, the value of a piece of property (whether the property is used in mining coal, producing steel, providing parking space, or furnishing housing facilities) is equal to the value of the goods or services which the property produces. Since a considerable portion of the goods and services will be produced in the future, it is necessary to take the time interval into account, in estimating the present worth of the property.

The present worth of any future good decreases the longer the waiting period before the good can be obtained. Three obvious reasons will show why this is so. First, if the goods were immediately available, it could be used to satisfy immediate wants. The fact that this gratification must be postponed entails some inconvenience or cost. Secondly, if the money equivalent of the future goods were immediately at hand, the funds could be put in the bank and would earn interest. The foregoing of this interest results in decreasing the present worth of a good, to be obtained at some future date. And thirdly, the longer the period of time required to obtain the goods, the greater is the risk that the future goods may never materialize.

To illustrate the calculations that are made to arrive at the present value of a piece of property, the following assumptions have been made:

(1) the rate of interest is 10%, (2) the income from the property is $100 during the present year, (3) the following year the income will also be $100, (4) there will be no further income from the property after the second year. The value of the property is: (1) $100, this year's income, plus (2) $100 divided by 1.1, or $90.91 for the second year's income. The value of the property is thus $190.91. For the formula used in computing these figures, as well as an explanation of the formula, see page 65 in the Appendix.

If a tax of $10 per year should be levied on the property, then the net income would only be $90 per year. The value of the property would then be: (1) $90, this year's expected income, plus (2) $90, next year's income divided by 1.1, the sum of which is $171.82. In this case, when the payment of the tax was anticipated at the time the property was acquired, its collection places no burden at all on the taxpayer, for the amount has already been taken into account at the time when the property was evaluated. It is the owner of the property at the time when tax is imposed, not when it is collected who, in a certain sense, can be said to be paying the tax.

The imposition of the tax on real estate will have no effect on the production of goods and services in the community but will effect a redistribution of income and wealth. The consequences of the removal of this tax is seen to be just the reverse of the imposition of the tax. The value of the property will rise by an amount equal to the discounted tax payments. Thus, in terms of the present analysis (assuming all other things being equal), it is simply a question of what value should be placed on the property. Theoretically, it is a matter of complete indifference whether we assume a situation where the tax is to be collected or whether the reverse is assumed.

The above example was used to elucidate some of the principles.

In practice, of course, the income from the property is never foreseen with certainty. The market is rarely so perfect that a change in charges induces immediately a corresponding change in the market value of the asset. It remains true, nevertheless, that there is a tendency for these changes in capitalized value to take place. The imposition of the tax, or its removal, will cause changes to take place in the incomes of the property owners.

In particular, it should be borne in mind that the real estate tax is levied on structures as well as land, and, therefore, this tax can have broad economic and social implications. The variations in the tax rate may affect the rate of new construction activity. If the tax rate should reach the point where the returns to the construction industry are markedly below the returns in other economic undertakings, then new construction will lag. The supply of housing will in turn, determine the extent to which property owners can shift real estate taxes to those who rent houses. Also, a tax rate of large proportion may play conceivably an important role in determining whether to rent or own a home.

If the property tax levied by the State is abandoned, no economic effects may be observable immediately. A reason for this, among other things, is that the State tax is a small part of real estate expense. The ultimate consequence would be a rise in the value of the property. The renting property owners would benefit by an increase in net income. The rise in the value of property would not materialize, if the levy rates of the counties and municipalities were raised to balance off the abandonment of the general property tax by the State.

SUMMARY

The abandonment of the real estate tax in Maryland will tend to increase the income of property owners in the long run, provided that the

municipalities and counties do not correspondingly increase their taxes. Should the latter event occur, then the primary benefit of the State's non-imposition of the real estate tax will accrue to the local governments.

V. ALTERNATIVE SOURCES OF FUNDS FOR CAPITAL IMPROVEMENTS

The two largest revenue-yielding taxes of the State of Maryland, omitting gasoline taxes which are specifically allocated for highway construction and repair, are the income tax and the sales and use tax. While the latter tax may be said to be in the experimental stage as far as Maryland is concerned, as it was put into effect in 1949, the tax has been widely used in other states. It can be assumed safely that no unexpected difficulties will arise in connection with it.

In 1951, $30,482,320.96 was collected from the sales tax, this sum amounting to 21.50% of the total tax revenue of the State. See Table 2 on page 36. The amount collected is ordinarily more than sufficient to finance the capital improvement program of the State. However, sales tax collections are not a surplus over State expenditures, and if any fraction of these funds is drawn from their present function, they will have to be replaced. The present rate at which the tax is levied is 2% of the value of each separate sale over 50 cents. This rate could not very easily be raised. In fact, the levy was reduced at a special session of the General Assembly in November 1950.[1/] Therefore, if the revenue of sales tax should be reallocated in favor of the capital improvement program, some other tax would be needed to supply the funds removed.

This is not the place to discuss the general merits of the sales tax. But to consider it along with the real estate tax, it may be worthwhile to point out that this tax is also regressive. It is regressive for several reasons: (1) A larger proportion of the income of low income groups is

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1/ At that session, the 1 cent tax on purchases from 14¢ to 50¢ was removed and tax exemption was extended to a number of items.

spent on consumption items than is that of high income recipients; (2) Of the sums spent, a larger fraction of the low income group expenditure is spent on small items for which the actual rate of taxation is frequently somewhat higher than two per cent. For these reasons, the sales tax is a worse offender than the property tax as the base of the tax has less to do with ability to pay than does the property tax.

The income tax of the State of Maryland is a proportional tax levied at the rate of 5% on investment income and 2% on the remainder of net taxable income. While the sums collected from the income tax have fluctuated rather widely since its establishment by the Legislature in 1942, the percentage of total tax revenue represented by the revenue from the income tax has remained relatively constant. See Table 2 below.

TABLE 2
STATE OF MARYLAND
INCOME TAX AND SALES TAX RECEIPTS
1940 - 1951

	Income Tax		Sales Tax	
Year	Receipts	% Total State Receipts	Receipts	% Total State Receipts
1940	$ 7,636,541.25	16.77		
1941	6,939,196.15	14.21		
1942	10,417,969.09	20.26		
1943	8,362,846.46	22.77		
1944	9,426,774.11	20.28		
1945	10,543,601.05	20.97		
1946	9,678,107.28	16.68		
1947	14,838,135.69	21.94		
1948	19,390,751.66	19.10	$ 23,663,298.36	23.30
1949	26,216,493.45	22.31	27,960,532.45	23.80
1950	28,729,984.59	22.26	28,386,692.14	22.00
1951	32,926,608.48	23.24	30,482,320.96	21.50

Source: Reports of the Comptroller of the Treasury, 1940 - 1951.

In view of the short period of time under observation and the complexity of the problem under consideration, it is too early to hazard a guess as to whether there is an inherent tendency in the economy and tax structure of Maryland to yield such results continually or whether the comparative uniformity was purely coincidental. The revenue from the income tax at present rates is a part of the current budget. It does not yield a surplus over current expenditures sufficient to pay for the capital improvement program. Any portion of the funds taken from their present function would have to be replaced. This would have to be done either by raising the present rate of the income tax levy or by finding some other source for the revenue.

The two difficulties faced by an economy in the levy of an income tax, and in particular those faced by a single state in the national economy in attempting to levy a progressive income tax, are well known. Income taxes may act as a deterrent to economic activity, and it may cause the flight of the taxpayer from the jurisdiction of the levying authority.

It is difficult to compare the burden of the income tax in the State of Maryland with the burden of the income tax in other states, because only one other state distinguishes between income derived from investment and other income. Furthermore, most of the states levying an income tax, use a progressive rate of taxation. Even though these states may have surtax rates for the top incomes in excess of the Maryland tax rates on investment income, the total amount to be paid as tax by individual recipients of high incomes, may be smaller in these jurisdictions.[1/]

1/ The surtax rates are the graduated part of income taxes which are applied to successive brackets of net income minus exemptions, and which rise with each bracket. There is also a normal tax rate which is a flat percentage applied without graduation to net income minus exemptions.

An additional factor which must be taken into account in discussing an extension of the income tax is that at present the Maryland Constitution may prohibit the levy of a progressive income tax.[1/] In 1937, the General Assembly passed an amendment to provide for classified, graduated and progressive taxes on income, but this was rejected by the voters in 1938.

In any event, the income tax should be further investigated as to the possibilities for raising its rate. The increased revenue to the State would have to be weighed against the added burden of the tax, and the real rate of the levy in other states, not the nominal rate (which may be quite different as explained before) would have to be used to determine what rates of taxation would not be comparatively excessive.

In considering alternative sources of funds to be used to pay for the capital improvement program one should keep in mind that, if the State levy on real estate were removed, the counties and municipalities would be able to increase the rate at which they tax property. This increase in the revenue of the local jurisdictions might possibly enable the State to retain a larger portion of the tax receipts, for example, from income tax, horse racing, etc., which at present it returns to these jurisdictions. These funds could be used to pay for part of the capital improvements. The amounts returned by the State to local authorities is given below in Table 3.

1/ Article 15 of the Declaration of Rights provides that taxes must be uniform.

TABLE 3
SHARE OF TAX RECEIPTS RECEIVED BY
COUNTIES AND MUNICIPALITIES1/
1941 - 1951

Year	Amount	% Total State Receipts
1941	$ 1,341,228.46	2.75
1942	1,954,189.39	3.80
1943	537,810.35	1.46
1944	1,799,068.83	3.87
1945	1,584,131.36	3.13
1946	3,385,733.86	5.83
1947	4,075,614.97	6.02
1948	3,487,650.42	3.44
1949	10,666,155.75	9.08
1950	11,072,480.45	8.58
1951	14,597,423.21	10.29

Source: Report of the Comptroller of the Treasury, 1941 - 1951.

Aside from the sales tax, income taxes, and taxes levied on motor vehicles, there are several additional sources of revenue. These are listed below in Table 4 in order of magnitude.

TABLE 4
STATE OF MARYLAND
YIELD OF MINOR TAXES IN 1951

Source	Amount	% Total of State Receipts
Alcoholic Beverage Excise Taxes	$ 6,990,242.08	4.93
Tax on horse racing and wages	4,721,030.41	3.33
Special Corporation Taxes	4,266,744.80	3.01
Tax on Insurance Premiums	4,316,556.04	3.05
Inheritance Taxes	2,978,527.74	2.10
Other Taxes	2,857,962.57	1.52
Total Minor Taxes	$ 25,131,063.64	17.73

Source: Monthly Report of Controller of the Treasury, June 30,1951.

1/ Gasoline Taxes and Motor Vehicle Revenue are not included herein, but fees in lieu of personal property are.

The revenue from any one of the six sources, except for the alcoholic beverage excise taxes, does not yield as large a sum as the real estate tax did before 1939, as can be seen by comparing Table 4 with Table 9 of the Appendix. The amount of revenue derived from each of these taxes has increased relative to the revenue obtained from the property tax since 1940. None of these taxes, however, seems to have any special merits for the purpose of financing the capital improvement program.

The principle of having the funds for the capital improvement program drawn from a single source of revenue can be questioned. There does not seem to be any apparent reason for not raising the funds for servicing the loans to finance capital improvements from taxes other than the property tax levied by the State. The advantage in not having the revenue of one special tax devoted to capital improvements but having the money come from any available source is that in this way the integration of the capital improvement expenditures with the rest of the fiscal program of the State can be more easily arranged.

SUMMARY

Of the two largest revenue-yielding taxes of the State - the income tax and the sales and use tax - the income tax appears more favorably as the one which might be raised in order to finance capital improvements. The possibility of raising the rate, however, requires thorough investigation.

A Constitutional amendment to permit greater flexibility in servicing the debt of the State may be needed and desirable as no specific tax seems pecularily better suited for financing capital improvements than any other tax. Therefore, the tax to be used to repay any particular loan should be determined after careful consideration at the time the loan is authorized by the General Assembly.

VI. SELF-LIQUIDATING CAPITAL PROJECTS

A self-liquidating public project is one which will yield sufficient revenue to pay for itself. During its useful life, enough funds are collected from people using the facility to cover construction costs, interest payments, and operating expenses. Such undertakings have become quite popular because State debt-structures are not affected.

The usual procedure to obtain funds for a self-liquidating project is for the administering authority to issue bonds for the required funds. These are secured by the potential revenue of the project. There are several such facilities in Maryland at the present time. Among them are: the Susquehanna River Bridge, the Potomac River Bridge, and the Chesapeake Bay Ferry System. The Chesapeake Bay Bridge, presently under construction, will also pay for itself through the imposition of tolls. In other States, roads and parkways have been made self-liquidating through systems of tolls.

In spite of the fact that revenue-producing facilities have many financial advantages, it is important to remember that the major criterion for constructing facilities should be the need or utility of the project. A given toll bridge, which is necessary for the economy and welfare of the community, may be self-liquidating. Yet this same bridge, were it constructed and no toll charged for using it, would be no less useful or efficient. Of primary importance then, is the service which the project will render. Once having determined the desirability of the undertaking, the question of the means of financing the project must be considered. It is at this point that the self-liquidating possibilities of the facility should be investigated.

If all State projects were required to pass the test of

self-liquidation, the result would be most unfortunate. While there is no denying that some projects lend themselves to this type of approach, there are others which do not. Some capital improvements render services which cannot be allocated to particular individuals but benefit the citizens of the State as a whole. The State House is an example of this type of facility. It cannot be disputed that the State House is necessary for the proper functioning of the government. Under the principle of complete self-financing of all facilities, however, no State House would be constructed.

It is apparent, therefore, that self-liquidity will not serve as an effective criterion for determining whether or not a project should be undertaken. But even further than this, self-liquidity will not even establish the relative importance of different projects. A hospital which could not be made to pay for itself might be more necessary for the welfare of the citizens of a given state than a spa to exploit some natural mineral springs which would pay for itself in a few years. Even those capital projects which are not so closely bound to "welfare services," but are more clearly connected with the economic development of the State, cannot be judged solely on the basis of direct financial renumeration.

It is said that the TVA returns dollar for dollar all the money invested by the Federal Government in this project. Even if this were not true, however, it might nevertheless be a fact that the development of the Tennessee Valley area raised the productivity and real income of this entire region, opened up many private investment opportunities, and indirectly added to the purchasing power and income of the entire Nation. Because of these reasons, the project may be considered necessary, regardless of the revenue-producing features of the plan.

From the point of view of the taxpayers, self-financing projects are advantageous in that they do not add to the tax burden. To the extent that the individual taxpayer is not the same person employing the services of the facility, there is a saving to the individual. While the policy of charging the users of particular facilities for the services they receive is in most cases the most equitable method of raising revenue, it does not necessarily follow that this policy will yield the maximum social gain. It is quite conceivable that a better allocation of resources might result if the services were rendered free.

The claim has been made that maximum social benefit would be obtained from government-owned facilities if the services were sold at nominal prices. Some advocates of this policy maintain, for instance, that only operating expenses should be covered, and other expenses should be met from tax revenues. This point of view is not applicable where the taxes are to be raised from real estate rather than from progressive income taxes. Under these circumstances, any improvement in the allocation of resources used for the provision of government services may be counterbalanced by a distortion in the construction and housing industry due to the burden of the additional tax on real estate.

In the case of Maryland, where non-highway capital improvements are not self-liquidating and are paid for by a tax on real estate, it can be advocated that a capital improvement which can be made self-liquidating should be made so. This would transfer the cost of some of the major capital improvements from the property owners of the State to those directly benefiting from the services of the project.[1/]

1/ See Debt Financing of Plant additions for State Colleges and Universities, by Robert Bruce Stewart and Roy Lyon, Perdue University (1948), for a comprehensive review of the experience of various state educational institutions in the construction of self-liquidating capital improvements.

SUMMARY

The criterion for a capital improvement project is the necessity and utility of the proposed facilities. Self-liquidation should be used whenever possible as a method of financing the improvement after its usefulness has been established. Particularly under the existing tax structure in the State of Maryland, projects should be made self-liquidating wherever possible in order to lighten the burden of taxation placed on real estate which is the primary source of revenue for repayment of State debt.

VII. PAY-AS-YOU-GO VERSUS BORROWING

Neither for the individual nor for the government is it necessary to have receipts balance expenditures over short periods of time. To take an extreme example from the life of an individual, the lunch hour when the money is spent is not the time during which an equivalent amount is being earned.

While for most purposes it has been found convenient to use a year as a unit and to attempt to balance the books at the end of this interval, there is no economic reason for believing that this period is best for all purposes. It is no indication of financial difficulties for expenditures to exceed receipts for a week or a month, if there is an equal balance in the other direction in a subsequent or preceding week or month. By the same token it may be necessary also that expenditures exceed receipts over periods of years without there being any indication that the amounts spent are beyond the means of those spending them. This is true in the case of the purchase of items like a house or an automobile by an individual, or in the case of a singularly large capital improvement expenditure on the part of the government. In these instances the money must either be saved up in advance, or it must be borrowed and repaid from subsequent revenue.

When the government makes an expenditure for a capital improvement for which there is not a sufficient surplus of current receipts over expenditures for current services, it is necessary to borrow the money. The justification for this procedure is that a capital improvement is an item which will be beneficial and useful over a number of years. It is, therefore, deemed equitable that the improvement should be paid for over that period of time when the benefits of the capital expenditure are derived

rather than raise the levy on taxpayers in the particular year in which the capital construction project was decided upon. Indeed, in the case of rapidly growing communities where capital improvement is being made, which is designed to serve the needs of the larger anticipated community, the expenditure on capital construction may increase the budget in a given year by a considerable percentage. In Maryland, for example, by borrowing the money and setting the maximum period of repayment of the debt at fifteen years by constitutional limitation two purposes were accomplished: (1) the tax burden of any given year was prevented from reaching too exorbitant a rate, as only part of the expense of the capital improvement fell in any given year; (2) the improvement was paid for during the period in which the services were being derived from it. While the exact improvement for which the individual's taxes are paying may not be yielding specific benefits to the paying person, yet to the extent that the community in general is better served, the assessment on its members is considered justifiable by most economists.

This kind of financing was defensible when the capital improvement expenditure took place at sufficiently rare intervals so that one borrowed sum was paid for before a second debt was incurred. However, at present, with capital expenditure as much a part of annual expenditures as any part of the budget, financing by borrowing simply means that the taxpayer is always paying debt-carrying charges. Each year there is a redemption of some bonds and an issuance of others. Therefore, neither one of the above goals is to any extent attained. While the whole of a single capital improvement is not paid for in one year, the annual revenue requirement, made up of the sum of all the fractions of many capital expenditures, may well amount to the entire cost of a single item. Nor does it have any

meaning to say that the improvement is being paid for during the time in which it is rendering services since, due to the overlapping of the time for repayment of the various debts, the annual charge for capital improvements is not lessened. Under these circumstances all that the policy of borrowing for capital expenditure means is that the taxpayers of the State have to pay the interest on the debt in addition to the construction expenses.

Theoretically, the problem of governmental borrowing for capital improvements is analogous to the problem which an individual is faced with in deciding how to distribute his income over time. These governmental services that should be classified as consumption goods must pass the test of whether having the services of these capital goods in the present instead of waiting for them is worth the added cost in terms of the rate of interest. For the capital equipment which does not produce consumption goods directly but enhances the productivity of the community, one test is whether the increases in the production is sufficient to pay the interest on the loan.

The additional burden which the borrowing of funds places on the taxpayer is not a negligible item. With a rate of interest at 4% per annum and the debt to be repaid in equal annual installments over a period of 15 years, the sum of the payments for interest will amount at the end of the interval in question to more than one-third of the amount originally borrowed. If for example the sum borrowed were $1,000 at a rate of interest of 4% per year, 15 annual installments of about $89.95 will completely pay interest and principal of the debt. (see Table 5 on following page) The sum of the interest payments in this case amounts to $349.07. Of course, if annual payments are not made equal, the cost of borrowing will be smaller or larger depending on whether the payments in the early years are increased or decreased, respectively.

TABLE 5
THEORETICAL DEBT REPAYMENT SCHEDULE

(Showing repayment of $1,000 at 4% Interest, repaid over 15 Years)

Interest	Principal	Balance of Loan
$ 40.00	$ 49.95	$ 950.05
38.00	51.95	898.10
35.92	54.03	844.07
33.76	56.19	787.88
31.52	58.43	729.45
29.18	60.77	668.68
26.75	63.20	605.48
24.22	65.73	539.75
21.59	68.36	471.39
18.86	71.09	400.30
16.01	73.94	326.36
13.05	76.90	249.46
9.98	79.97	169.49
6.78	83.17	86.32
3.45	86.32	0.00
	Final Payment	89.77
$349.07 Total		

The monetary saving of a pay-as-you-go plan for financing capital improvements must be weighed against the rigidities which this will introduce in the timing of the expenditures. If the State government should accumulate a surplus in times of prosperity and spend this money during period of underemployment, then the savings of the pay-as-you-go plan would be sufficient to warrant its adoption. If no surplus is accumulated, however, during periods of full employment, the refusal to incur debt for capital improvement financing will mean that in a recession, expenditures of the State would be curtailed.

As pointed out in Chapter II, a major element in the timing of public expenditures should be the cyclical phase of the economy. A policy which does not time public expenditures so that they will counteract, but which tends to aggravate, cyclical fluctuations is poorly suited to our economy. Past experience indicates a hesitancy on the part of State

officials to accumulate a surplus in the Treasury except when forced to do so by the exigencies of war finance. The advisability of adopting a pay-as-you-go program is, however, contingent on the adoption by the State of a policy of accumulating a surplus in periods of prosperity.

In the 1945 revision of the Capital Improvement Program for Maryland, the State Planning Commission suggested a plan for putting the capital expenditures of the State on a pay-as-you-go basis. On the basis of the construction needs of the State, the cost of this construction in terms of the price level current in 1945, and the surplus existing in the Treasury at that time, it was believed that within a period of 15 years the public works construction program of Maryland could be financed from general fund appropriations of current revenue. This would not increase the taxpayer's burden during the 15 years and would have resulted in the complete elimination of the State debt.

Again in the 1949 revision of the Capital Improvement Program, use of surplus funds for financing most of the 1949 capital improvements was suggested, as a substantial beginning toward a complete pay-as-you-go policy and the eventual elimination of the State debt. The surplus at that time was $23,498,755 and the Commission's recommended capital improvement program was $31,176,969. However, the General Assembly increased the program to $39,912,300 of which $23,539,300 was appropriated from General Funds. In addition, the Assembly authorized the issuance of $70,000,000 of State loans for public school construction throughout the State, making a total of $86,723,000 of capital improvement bonds authorized in 1949. In 1950, $6,672,700 of bonds were authorized, and an additional authorization of $22,005,000 in bonds occurred in 1951. Thus, the possibility of immediately placing the capital improvement program on a pay-as-you-go basis, and paying

off the entire State debt in the near future, disappeared.

Once the debt has been wiped out, the savings in the payment of the service charges on the debt, plus an appropriation from the general fund, should be able to take care of the expenses of the capital improvement program. The difficult part of achieving such a goal as this, is the elimination of the debt. If the expenditures on construction were staggered instead of being bunched, they would be within reach of the current annual budget. Specifically, we can point to the $70,000,000 which is being spent on public schools. If the schools had not been neglected by the lack of new construction for over 20 years, no such large sum would have been necessary to fill the needs of the school system. Suitable annual expenditures would have been within the reach of annual revenue.

SUMMARY

At the present time, with the absence of a large surplus in the State Treasury, there is no possibility of immediately placing the capital improvement program on a pay-as-you-go basis and eliminating the State debt. Certainly, the State cannot neglect all capital construction and devote its funds to paying off the large debt already incurred. If this were attenpted, the neglect of the years necessary to pay off the debt would place the State in the position of requiring tremendous capital construction expenditures which would again plunge it into a large debt.

However, the pay-as-you-go method of financing capital improvements should not be ignored by the State because of the difficulty of beginning it at this time. It should be adopted as a long-range policy and begun gradually by applying as much of current revenues to capital improvements as possible, with a view toward increasing the amounts each year. While this poses some problems in terms of the State's budget, unless such a

program is begun at once, even on a very small scale, the increase in the size in the debt will make future installation of such a policy almost impossible.

VIII. RECOMMENDATIONS

We should like to suggest that the following be taken under consideration for immediate application.

The fiscal reports of the State of Maryland should be modified so as to show capital outlay as a separate item. This does not necessitate any serious changes in the present method of keeping the State accounts. As a matter of fact the simplest way to put this suggestion into effect might be to add another table to the fiscal reports which would list the capital improvement expenditures. However, the preparation of this table is probably not a routine matter and many items will have to be carefully weighed for inclusion. The advantage of having a clear statement of the part of the State expenditures made for capital improvement, and the items for which these expenditures were made, would clearly be worth any effort and expense which constructing such a table would entail.

The second change suggested involves a more serious innovation in the financial policy of the State of Maryland. For the following reasons it is believed that the State should abandon the property tax as a source of funds for financing the debt:

1. The tax does not conform to the modern standards of a good State tax because:

    a. It is regressive;
    b. During a period of recession, it bears heavily on people with fluctuating incomes; and
    c. Real estate is already heavily burdened with municipal and county taxes which are the main source of funds for these levels of government; and
    d. The State and local governments should derive their revenue from separate sources.

2. The tax is particularly unsuited for the purpose of financing the capital improvement program because:

a. The lack of correspondence between the receipt of the benefit and payment of cost is particularly marked in the case of capital improvements of the State and ownership of property; and
b. The need for capital improvement outlays is rising more rapidly than is the value of real estate in the State of Maryland.

For the above reasons, we recommend that the State finance the debt from its other sources of revenue and cease levying a property tax. At the same time, the State should retain the option of reimposing the tax should the financial situation change drastically and make impossible the financing of capital improvements from other sources. Retaining this option would offer greater security in the sale of bonds for capital improvement financing.

We recognize that the State is limited in the other sources which might be used for financing capital improvements. However, from an analysis of the various taxes now imposed, an increase of the income tax appears to be the most likely source for additional revenue. We should like to emphasize that the possibility of extending this tax needs thorough investigation. Moreover, it is recognized that a considerable obstacle may exist in the form of constitutional prohibition against a progressive income tax, and if the decision is reached to install one, another attempt to obtain a constitutional amendment may be required.

In recommending the abandonment of the property tax, cognizance has been taken of several recent reports recommending its retention. Most of these reports have expressed a natural reluctance to make any serious revision in the State's tax structure, particularly in view of the present economic situation, highlighted by extremely high costs and an uncertain future. However, such an argument could well have been advanced at many other points in the State's history and represents a common reaction to

proposals for any basic changes.

A more important argument advanced lately by the Maryland Tax Survey Commission of 1949 is that the State property tax should not be abolished because of the need for uniformity of assessments among all of the State's subdivisions. Aside from the desirability of assuring equitable treatment to all taxpayers in the State, the State Government has a particular need for such uniformity because the distribution of school aid and welfare grants is based on property assessments. Fair distribution of such aid among the various localities depends, of course, upon a uniform and equal valuation procedure.

There is no reason, however, why the State cannot and should not continue to supervise and control valuations for purposes of assuring such uniformity, even though it no longer imposes a property tax, or if a different basis for school aid and welfare grants is adopted. At the same time, we can also question the use of the local property tax as the proper method of determining the amount of State aid to schools and welfare, regardless of the existence of a uniform valuation method. As was pointed out in Chapter III, property has declined in importance as a measure of wealth. It was for this reason that the Maryland Commission on the Distribution of Tax Revenues of 1946 recommended, in the case of schools, that the method of financing education in Maryland should be restudied.[1/]

We would also recommend, without commitment as regards individual projects, that the self-liquidation of capital improvement projects be adopted where feasible. We recognize the impossibility of making this a

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1/ Report of the Maryland Commission on the Distribution of Tax Revenues, September 30, 1946, page 97.

general rule: first, because many worth-while projects cannot be financed in this manner; second, in some cases, even though it would be possible to have the project pay for itself, such a policy would prevent the wide distribution of the services that is desired. Nevertheless, we should like to emphasize that, since the debt is now serviced almost exclusively from the property tax, the self-financing of those projects which can be made to pay for themselves would ease the burden on certain strained sections of the economy.

For consideration as a long-range goal we should like to propose the placing of the capital improvement program on a pay-as-you-go basis. Because of the present level of the State debt and the impossibility of going any considerable period of time without capital improvements, it is not possible to begin such a policy except on a very limited basis. However, because we believe that the benefits gained from borrowing in anticipation of revenue to make capital improvements belong to a past period in Maryland history; and because the monetary gains of the pay-as-you-go system over borrowing are unequivocally clear and large, we suggest that one of the major goals of long-range financial planning of the State of Maryland be the elimination of State debt and placing the capital improvement program on a pay-as-you-go basis.

A P P E N D I C E S

TABLE 6
STATE OF MARYLAND
TOTAL BONDS OUTSTANDING[1/]
1924 - 1951

Fiscal Year	Amount
1924	$ 34,247,881
1925	34,358,881
1926	33,578,881
1927	32,375,881
1928	28,321,880
1929	30,149,000
1930	32,975,000
1931	31,917,000
1932	35,412,000
1933	40,300,000
1934	43,637,000
1935	45,708,000
1936	45,125,000
1937	46,412,000
1938	48,247,000
1939	46,163,000
1940	44,166,000
1941	40,197,000
1942	36,359,000
1943	33,619,000
1944	29,468,000
1945	25,098,000
1946	20,902,000
1947	16,895,000
1948	22,734,000
1949	25,849,000
1950	32,846,000
1951	72,898,000

Source: Reports of the Comptroller of the Treasury, 1924 - 1950. The figure for 1951 was obtained from the Comptroller's balance sheet for June 30, 1951.

1/ Exclusive of issues of revenue bonds for roads and bridges.

TABLE 7
STATE OF MARYLAND
TOTAL CAPITAL OUTLAY[1]
1922 - 1950

(See explanation of figures on following page)

Fiscal Year Ended	Published By Census Bureau As	Highways	Other	Total
9/30/22	1922	3,852,000	528,000	4,380,000
9/30/23	1923	5,837,000	1,315,000	7,152,000
9/30/24	1924	4,418,000	1,059,000	5,477,000
9/30/25	1925	5,499,000	671,000	6,170,000
9/30/26	1926	3,579,000	752,000	4,331,000
9/30/27	1927	3,898,000	1,236,000	5,134,000
9/30/28	1928	6,556,000	2,963,000	9,519,000
9/30/29	1929	7,268,000	1,225,000	8,493,000
9/30/30	1930	10,808,000	2,184,000	12,984,000
9/30/31	1931	8,476,000	2,017,000	10,493,000
9/30/32	1932			11,493,000
9/30/33	1933[1]			13,053,182
9/30/34	1934[1]			11,121,230
9/30/35	1935[1]			11,779,777
9/30/36	1936[1]			8,974,931
9/30/37	1937	6,651,000	575,000	7,226,000
9/30/38	1938	6,707,000	2,145,000	8,852,000
9/30/39	1939	---	---	11,503,000
9/30/40	1940	11,818,000	2,719,000	14,537,000
9/30/41	1942[2]	7,937,000	1,240,000	9,177,000
9/30/42	1943	1,161,000	1,150,000	2,311,000
6/30/44	1944	6,838,000	405,000	7,243,000
6/30/45	1945	4,052,000	509,000	4,561,000
6/30/46	1946	5,059,000	868,000	5,927,000
6/30/47	1947	9,527,000	1,852,000	11,379,000
6/30/48	1948	12,438,000	6,565,000	19,003,000
6/30/49	1949	23,281,000	10,043,000	33,324,000
6/30/50	1950	31,686,000	10,272,000	41,958,000

Source: U.S. Bureau of the Census, Summary of State Finances, except for the years 1933-36. For these years, the source is explained in footnote 1/

1/ The figures for these years are derived from an unpublished report of the Maryland State Planning Commission, Public Works Expenditures by the State, Counties and Baltimore City during 1924 to 1938, inclusive, dated January, 1941. For an explanation of the difference between these figures and the figures of the Bureau of the Census, see Explanation of Figures on page 59.

(See Footnote 2 on following page)

2/ For 1942 and subsequent years, Census publications on State finances have related to State fiscal years ending in the 12 months preceding June 30 of the year specified. Thus from 1942 until 1944, when the fiscal year ending of Maryland was changed to June 30, data published by the Bureau of Census were for fiscal years ending September 30 of the calendar year preceding the year specified. Prior to 1942, Census data were for State fiscal years ending in the calendar year specified. Owing to the shift in period covered in 1942, Maryland data for the year ending September 30, 1941 were published as 1941 data in the 1941 report on State finances and again as 1942 data in the 1942 report. To achieve comparability as to fiscal period with present practice, published Census figures for Maryland for 1941 and prior years should be shifted forward one year, e.g., published "1939" figures should be read "1940" etc.

Explanation of figures in Table 7

The figures for capital outlay for the State of Maryland are derived from a series published by the U.S. Bureau of the Census, except for the four years 1933 through 1936, during which time no such figures are available. For the purposes of its series of reports, the Bureau of the Census has defined capital outlay as follows:

> "Capital outlay is expenditure - including that financed from borrowed money - for purchase or construction of fixed assets (land, buildings, permanent improvements, and durable equipment) including additions, replacements, and major alternations. Expenditure for repairs to fixed assets is classified as operation expenditure rather than capital outlay. However, if amounts for repair cannot readily be segregated from capital outlay (e.g. under 'repairs and replacements,' 'repairs and alterations,' etc.) the entire amount is classified as capital outlay."

This definition is more restrictive than that set forth in the preface. However, since statistics based on the more inclusive definition are not available, we have based this part of our study about capital outlay on the Census figures, even though they are not precisely what is desired.

For the years which are lacking in the Census series, we have used figures compiled by the Maryland State Planning Commission for a study of public works expenditures during 1924 to 1938. These figures are not strictly comparable to those of the Bureau of the Census. Apart from minor differences in classification, the Planning Commission report, the purpose of which was to study public works expenditures rather than capital improvement, gives the figures for construction and maintenance combined.

TABLE 8

BOND AUTHORIZATIONS OF STATE OF MARYLAND
SERVICED BY GENERAL PROPERTY TAX
1912 - 1951

Year	Authority		Purpose	Amount
1912	Ch.	749	Building construction and equipment; acquisition of land; roads	$ 400,000
	Ch.	776	Maryland State Normal School	600,000
	Ch.	477	Refunding "Consolidated Loan 1899"	1,000,000
	Ch.	90	Construction at Hopkins applied science	600,000
	Ch.	187	Construction of mental hospitals	800,000
	Ch.	370	Roads	3,170,000
1914	Ch.	267	Roads; Patapsco River Bridge; paving Baltimore	6,600,000
	Ch.	791	Building construction and equipment	950,000
1916	Ch.	681	Roads $2,700,000; Building construction and equipment $300,000	3,000,000
	Ch.	142	Appropriations already made, i.e., to pay deficit	2,000,000
1917	Ch.	3	"War Loan of 1917"	1,000,000
1918	Ch.	284	War Emergency	1,000,000
	Ch.	298	Refunding "War Loan 1917"	1,000,000
	Ch.	295	Roads	3,000,000
1920	Ch.	382	Bridges; protect Ocean City Beach front	250,000
	Ch.	727	Soldiers, Sailors and Marines Memorial; Building construction and equipment	1,500,000
	Ch.	508	Roads	3,000,000
1922	Ch.	310	Road from Southern Maryland to Baltimore	1,000,000
	Ch.	464	Building construction and equipment	1,750,000
	Ch.	203	Roads and bridges	3,150,000
	Ch.	448	Bonus for military service	9,000,000
	Ch.	494	Bridge over Susquehanna	700,000
1924	Ch.	279	Roads, paving in Baltimore City, substitution for Susquehanna River Bridge Loan 1922	900,000
	Ch.	280	Building construction and equipment	2,460,000
	Ch.	277	Construction and extension of roads	4,500,000
	Ch.	274	Pay indebtedness of St. Johns College	110,000
	Ch.	533	Repairs and improvements on Hospital and other building of U. of M. in Baltimore	75,000
	Ch.	369	Improve facilities of Washington College	100,000
	Ch.	366	Science building Western Maryland College	125,000
1927	Ch.	47	Bridges; paving in Baltimore City	1,000,000
	Ch.	345	Building construction and equipment; acquire land	4,375,000
	Ch.	633	Pay part of cost of Fifth Regiment Armory Plaza	150,000
	Ch.	666	Industrial science building at Morgan College	125,000
	Ch.	454	Completion of Crain Highway; roads	2,125,000

TABLE 8 (Continued)

Year	Authority		Purpose	Amount
1929	Ch.	129	Construct bridges; paving Baltimore	$ 1,500,000
	Ch.	263	Charlotte Hall School, St. Mary's County	50,000
	Ch.	132	Building construction and equipment; acquire land	3,761,000
	Ch.	227	Connect Philadelphia Road and Village of Edgewood	72,000
	Ch.	130	Construct roads, pave Baltimore	1,500,000
	Ch.	278	Construct roads, pave Baltimore	4,000,000
1931	Ch.	248	Highway improvement	2,000,000
	Ch.	253	Building construction and equipment	5,663,000
	Ch.	511	Construction of canal	500,000
1933	Ch.	311	Building construction and equipment; funding accrued liabilities of Teachers' Retirement Fund	2,523,000
	Ch.	254	Baltimore relief	12,000,000
1935	Ch.	91	(1) Absorb deficit; (2) working funds for various purposes, (3) building, construction and equipment; (4) some other current expenditures	8,500,000 1/
	Ch.	89	Building and construction and Teachers' Retirement Fund	855,000
1936	Ch.	83	To take care of flood damage	1,500,000
1937	Ch.	368	State Office building loan	1,000,000
	Ch.	487	General Bond Issue of 1937, Buildings, construction, Equipment, restoration of Highway Funds $3,300,000 and Morgan College $100,000	9,052.000
1939	Ch.	756	(1) Building, construction (2) acquire Morgan College or establish State College for negroes (3) forestry	4,130,000
1941	Ch.	854	Building, construction and equipment	2,317,000
1945	Ch.	747	Building, construction and equipment land purchase	4,625,000
	Ch.	996	Acquiring and equipping new State Office Building in Baltimore	2,000,000
1947	Ch.	624	To erect armories	560,000
	Ch.	694	Construction, etc.	11,695,000
1948	Ch.	4	Construct armories	560,000
	Ch.	8	Improving, equipping, furnishing State buildings	525,000

1/ The inheritance tax as well as the property tax was authorized for debt service of this loan.

TABLE 8 (Continued)

Year	Authority	Purpose	Amount
1949	Ch. 277	Building, construction and equipment 1/	$ 16,373,000
	Ch. 683	Establish school for colored blind and deaf at Maryland School for the Blind	350,000
	Ch. 488	Public school construction loans	50,000,000
	Ch. 502	Public school construction	20,000,000
1950	Ch. 48	Mental Hospital Construction Loan	2,800,000
	Ch. 109	General Construction Loan of 1950	3,872,700
1951	Ch. 412	General Construction	19,005,000
	Ch. 413	Equipment, supplies, land, buildings for Civil Defense	1,000,000
	Ch. 414	Engineering Building Johns Hopkins University 2/	1,500,000
	Ch. 626	Building - St. Mary's Seminary Junior College	500,000
TOTAL BOND AUTHORIZATIONS SERVICED BY GENERAL PROPERTY TAX BETWEEN 1912 AND 1951			$ 257,803,700

1/ Supplementary Budget No. 2, Ch. 193 of the Acts of 1949, appropriated $23,539,300 in surplus funds for capital improvements at the State's mental hospitals and tuberculosis sanitoria.

2/ The Circuit Court in a friendly test suit ruled this act unconstitutional because in violation of Section 34, Article 3 of the Constitution of Maryland. The case will be appealed to the Court of Appeals for final adjudication.

TABLE 9
STATE OF MARYLAND
TAX RATES AND LEVIES ON REAL AND PERSONAL PROPERTY AND SECURITIES[1/]
1924 - 1951

Year	Real and Personal Property Rate	Real and Personal Property Levy	Securities Rate	Securities Levy	Total
1924	.30- 2/13	$ 4,830,384	.15	$ 453,288	$ 5,283,672
1925	.27-12/35	5,122,285	.15	508,491	5,630,776
1926	.27-12/35	5,647,147	.15	575,464	6,222,611
1927	.27-11/28	7,315,453	.15	655,514	7,970,967
1928	.25-64/100	5,688,609	.15	744,338	6,432,947
1929	.25-74/100	5,983,681	.15	890,185	6,873,866
1930	.25	6,059,816	.15	889,483	6,949,299
1931	.25	6,185,616	.15	934,740	7,120,356
1932	.25	5,989,154	.15	809,449	6,798,603
1933	.25	5,822,194	.15	527,778	6,349,972
1934	.22	4,861,018	.15	549,051	5,410,069
1935	.22	4,826,722	.15	572,280	5,399,002
1936	.22	4,876,619	.15	618,610	5,495,229
1937	.22- 1/4	4,009,434	.15	729,352	4,738,786
1938	.23- 1/100	5,313,717	.15	872,340	6,186,057
1939	.23-35/100	5,452,965	.15	833,176	6,286,141
1940	.23-35/100	5,692,214			5,692,214
1941	.23-23/100	5,917,025			5,917,025
1942	.14	3,767,498			3,767,498
1943	.12-75/100	3,533,911			3,533,911
1944	.12	3,535,107			3,535,107
1945	12	3,676,699			3,676,699
1946	0	2,929,352			2,929,352
1947	.10	2,914,264			2,914,264
1948	.11-13/100	3,549,573			3,549,573
1949	.11-15/100	4,127,994			4,127,994
1950	.12-39/100	4,812,076			4,812,076
1951	.06	2,497,550			2,497,550

Source: Reports of the State Tax Commission.
Reports of the Comptroller of the Treasury, 1924-1951.

1/ The tax on securities was repealed by the General Assembly in 1939, Ch. 277, Laws of Maryland.

TABLE 10
STATE OF MARYLAND
ASSESSED VALUE OF BASE OF STATE LEVY
1924 - 1951

Year	Property Other Than Securities	Securities 1/	Total
1924	$ 1,600,812,723	$ 298,776,007	$ 1,899,588,730
1925	1,869,202,119	339,082,827	2,208,284,946
1926	2,063,201,692	417,642,682	2,480,844,374
1927	2,670,669,514	438,342,493	3,109,012,007
1928	2,218,646,302	496,225,559	2,714,871,861
1929	2,297,638,624	593,456,399	2,891,095,023
1930	2,423,926,287	592,988,619	3,016,914,906
1931	2,547,286,039	623,160,109	3,170,446,148
1932	2,386,817,621	539,245,865	2,926,063,486
1933	2,329,009,567	352,202,306	2,681,211,873
1934	2,209,553,615	366,034,024	2,575,587,639
1935	2,193,964,656	381,520,037	2,575,484,693
1936	2,216,642,904	412,406,506	2,629,049,410
1937	2,251,543,089	486,210,721	2,737,753,810
1938	2,309,338,735	581,535,987	2,890,874,722
1939	2,335,301,651	555,424,408	2,890,726,059
1940	2,437,891,638		2,437,891,638
1941	2,534,078,025		2,534,078,025
1942	2,691,069,806		2,691,069,806
1943	2,771,694,665		2,771,694,665
1944	2,945,939,458		2,945,939,458
1945	3,063,931,363		3,063,931,363
1946	2,929,352,040		2,929,352,040
1947	2,914,264,024		2,914,264,024
1948	3,189,089,708		3,189,089,708
1949	3,702,272,825		3,702,272,825
1950	3,883,838,921		3,883,838,921
1951	4,162,583,920		4,162,583,920

Source: Reports of the Comptroller of the Treasury, 1924-1951.

1/ The tax on securities was repealed by the General Assembly in 1939, Ch. 277, Laws of Maryland.

FORMULA USED TO DETERMINE VALUE OF PROPERTY

In order to calculate the present value of an asset, three quantities must be known. They are: (1) the expected future income from the asset; (2) the rate of interest; and (3) the number of years that income will be obtained from the asset.

The equation for finding the current value of an asset is the following:

$$x = I_o + \frac{I_1}{(1+i)} + \frac{I_2}{(1+i)^2} + \cdots\cdots + \frac{I_u}{(1+i)^u}$$

Where x is the current value of the asset

I_o is the present year's expected income

I_1 is the next year's expected income

i is the rate of interest

u is the number of years

Let us assume that the rate of interest is 10%, the present year's income is \$100, the following year's income is \$100, and the third year's income is \$90, and no further income thereafter. The equation would work out as follows:

$$x = \$100 + \frac{\$100}{(1+.1)} + \frac{\$90}{(1+.1)^2} = \$100 + \frac{\$100}{(1.1)} + \frac{\$90}{(1.1)^2} =$$

$$\$100 + \$90.91 + \frac{\$90}{1.21} = \$190.91 + 74.38$$

The present worth of the asset under these conditions is \$265.29.

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